

of Western scientists belong either to the fourth group *i.e.*, they are pure nationalists, or they belong to the third group *i.e.*, they are internationally inclined nationalists. For them, their country's interest always comes first and then international considerations. I think all of us Indian scientists should try to be like them. This will automatically put our evaluating system, in proper perspective. It will Indianise our scientific organisations. Some of them certainly need more Indianisation.

It will not be easy for us to change from the second group which most of us are *i.e.* nationally inclined internationalists to the third group. One should note that the distinction between the two groups is subtle, but it is important. It determines whether your loyalties and feelings are primarily to international science or primarily towards Indian science and scientists. I will give you a familiar example. When I go to America, the physiologists there frequently complain that the British physiologists do not quote their work. When I am in Britain, the Britain physiologists throw up their hands "Oh! The Americans are impossible—they never quote our papers". In India, the scientists can be heard complaining "my work is quoted by everyone abroad but never by my Indian colleagues". This is what I mean—we think foreign first then Indian; our loyalties are to foreign scientists and not our own Indian scientists. But the situation is much worse in several areas for we continue to fight with one another. For example we still have two Physiological Societies, two Societies in the field of Immunology and two in Chest Diseases. Only a few years back, I recall a foreign pharmacologist was enjoying himself adjudicating between two groups of pharmacologists. Why then should we not suffer when we give foreigners the position to decide who is better than who? Clearly, we must convert ourselves to the third group and do it fast.

#### **Evaluation in Western countries:**

In the field of modern science, India is a young nation and it would be useful for us to examine and try to follow the procedures followed in those countries where science has flowered in

the past and which are in the forefront at the present time. Certain countries are themselves bringing in radical changes in their evaluating systems. Even the Nobel prizes, which we scientists think of as the pinnacle of achievement and recognition, have come in for review. For example, in the 1987 anniversary address, the President of the Royal Society, Sir George Porter said "from various Ministers and civil servants I have been told in turn that there is too much science, that this country (*i.e.* U.K.) can leave it to others, and that the importance of Nobel prizes went out with Harold Wilson". This is not just a solitary remark about the Nobel prize, expressing the thinking in Britain. There is constant talk of evaluating its importance in different ways. For example, in connection with relative assessment of the pursuit of pure science versus applied science, the Rt. Hon. Margaret Thatcher, F.R.S. said at the Royal Society annual dinner on September 27, 1988 "we should not forget that *industry* has had its share of Nobel prizes—AT & T for the transistor; IBM for warm superconductors, EMI for X-ray tomography. It is time we won some more". Clearly, she meant more in the industrial field. Personally I do not go along with this bias. I am merely mentioning it to tell you about the changes taking place in the assessment of achievements of scientists in other countries. In our country, I think our attitude to the Nobel prizes has had almost a disastrous effect in underevaluating the excellent work done by numerous outstanding contributors to science, literature, art and social service in India. The whole lot who contributed so much in the past and are contributing so much now are classed as second-rate, at any rate given second-rate treatment by historians and reviewers—treatment that would have been accorded to Raman and Tagore had they not got the Prize! I am therefore very glad that some people are trying to rectify the situation and it has therefore been a pleasure to note the efforts of some scientists towards putting the contributions of K.S. Krishnan in proper perspective. Let me say bluntly that it is stupid for people to say that India has produced only one great scientist. It is foolhardy to leave it to foreigners entirely to assess the merits of Indian men and women of science, letters and arts.